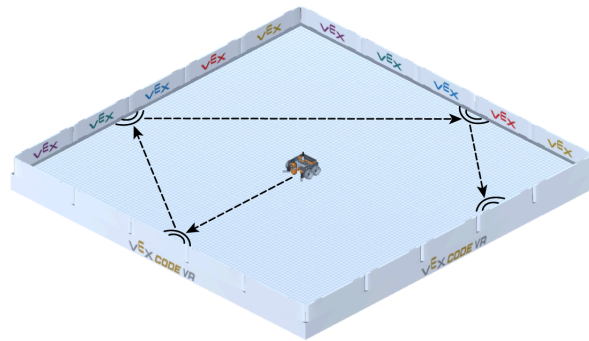


VEX CODE VR Activities



Robotic Vacuum



Playground: Art Canvas

Challenges:

Level 1: Program the VR Robot to move like a robotic vacuum. Use the *Distance sensing* blocks to program the VR Robot to turn or drive in reverse when it senses the walls of the Playground. It should move around and sense all four walls of the Playground.

Level 2: Program the VR Robot to move using a variable to set the threshold for the distance sensor. Use the *Set variable block*.

Level 3: Try to vacuum the whole table! Use *Random* blocks to change how much the VR Robot turns when it senses a wall. See if you can program it to move over the entire table. Trace your path using the Pen, and watch it go!

Helpful Hints:

- Each square in the Art Canvas measures 20mm by 20mm.
- Use the *Less than* block from the Operators category to program the threshold for the distance sensor.



- Matching Python command:

```
distance.get_distance(MM) < 50
```

vr.vex.com